REVIEW COMMENTS
on CALFED Alternatives Package
by U.S. Bureau of Reclamation
June 6, 1997

GENERAL

1. The actions contained in the common programs and their effects on the alternatives are not clearly depicted in this document. At this level of complexity it is difficult to evaluate the alternatives for technical adequacy.

2. It would be helpful to have an appendix to explain the rationale and technical bracketing parameters involved in each of the alternative configurations.

3. A more detailed discussion of the water quality standards being used and the possible modifications to Decision 95-6 would be useful to help explain potential future scenarios. At a minimum, we recommend a description of the State Board process and status.

4. Throughout the document there is use of popular terminology such as "ecosystem health". Defining these terms could avoid ambiguous interpretations and conflicts later in the process.

5. The CALFED planning process is unique and different from both the Federal and State traditional approaches. It would be helpful to define the specific differences (process considerations) and criteria (e.g., cost-benefit analysis).

NO ACTION

1. It is unclear exactly what specific components form "no action". It would be helpful to have a complete description of the no action alternative - projects, policies, procedures, modeling assumptions, etc.

2. Although there is a list of approaches to achieve water use efficiency, we recommend that a list of CVPIA and RRA policies be included.

COMMON PROGRAMS

General

1. It would be helpful to the reader if the four program goals could be stated in the introduction with the mission of the program, rather than following the brief summary of the common programs.

2. In summarizing the ERPP programmatic actions, the paragraph primarily centers on the actions and their effects on aquatic species. To avoid misinterpretation, the description should include targets and actions for terrestrial species as well.

an example, reducing the amount of toxicity in a river (performance measure) may not reduce the effects of certain toxins (action).

8. Under the action to reduce toxic effects of mercury, we recommend that the achievement of U.S. EPA 304(a) guidelines for the delta be expanded and the amount of reduction of mercury concentrations included.

9. The phrase "Unknown Toxicity" needs more explanation for adequate evaluation of the actions recommended.

10. Under the action to reduce impacts of sediment loading and subsequent turbidity, one of the performance measures includes the increase of juvenile anadromous fish production. Since there is no direct way of measuring the effects of sediment loading by the increase of juvenile anadromous fish production, we suggest that this measure either be removed from the list or included in all parameters possibly linked to fish production.

11. We believe that performance measures should be linked to the actions in such a manner which is useful for evaluation. Therefore we do not believe that the number of public workshops and other outreach activities is an adequate measure for the action to reduce the impacts of recreational water use and domestic waste.

12. The treatment or removal of Selenium is still in the experimental phase and listing it as a method to reduce the toxic effects of Selenium could be misleading.

13. Under the action to reduce the toxic effects of nutrient loadings, a more detailed explanation of the indicator of success (achievement of the Basin Plan Objectives) would be helpful.

14. Actions such as use of evaporation ponds for drainage impoundment are not highly recommended. We suggest listing technologies that are well known to be safe.

15. It is unclear if timed release of pollutant discharges will require new/additional storage facilities for these pollutants. If so, it is important to consider how viable this option is given the situations that have arisen with Kesterson Reservoir and Carson Sink.

16. On page 9, second paragraph: The summary on mine drainage actions in the Delta does not include copper, cadmium or zinc. Listing actions to reduce Mercury alone may give the impression that we are not taking actions for the other parameters of concern.

17. On page 11 the statement is made "to address potential toxicity to water and sediment." To clarify this sentence we suggest, "to address the potential toxicity of contaminated water and sediment."

H-000125

6. The Levee System Integrity Program requires more detail to review or identify potential issues.

7. It is important to describe how the moving meander belt is linked to the ERPP.

8. The levee discussion implies that the only focus is on Delta levees. It would be useful to describe if there will be any efforts to improve or construct levees outside the Delta.

9. It will be important for analysis to define in the alternatives who will be responsible for operation, maintenance and liability of the new and improved levees.

10. There is concern that the statement "The Program will provide for uniform funding and guidance to increase the level of protection throughout the Delta", conflicts with statements made at the ClubFed Retreat. According to our minutes, it was said that the Federal Government will not provide funds for improving existing levees or repairing flood-damaged levees unless they meet the requirements of FEMA/COE standards prior to damage. Clarification on this issue is important so that everyone understands policies and procedures.

11. It is important to define what is meant by "an acceptably higher level of protection" (50 year flood, 100 year flood, 500 year flood, etc.) and if this level is with or without tidal influences.

Ecosystem Restoration Program Plan

1. It would be helpful to understand what tools will be used to assess the ERPP 400,000 AF in 10 days.

2. Throughout the Program there appears to be a heavy reliance on water transfers as a tool to accomplishing restoration actions. There is a concern that this is not a realistic approach, a list of (generally) potential sources of transferred water would be helpful. Perhaps this could be done by including examples of past transfers.

3. A more detailed definition of the Adaptive Management Approach and a list of triggers would be useful for evaluation.

4. It is important to describe how the Adaptive Management strategy will be modified in light of new and evolving scientific information.

5. The ERPP targets and objectives are focused on emulating natural conditions in an unnatural environment. Perhaps it would be more logical to simulate a natural hydrograph instead of historic assumed flows.

ALTERNATIVES

1. Some of the alternative configurations in this document have received past evaluations. The inclusion of the results of these studies may prove useful to the reader.

2. There appears to be a redundancy in the alternative descriptions, which make it difficult to distinguish differences. A summary table showing the specific differences would help identify the important issues.

3. It is our opinion that salinity management in the Delta is a zero-sum game. If structural modifications in the Delta cause there to be lower concentrations of bromine in the California Aqueduct, we believe there will be a steeper salinity gradient on the Sacramento River and more bromine present at the intake for the North Bay Aqueduct. Possible ways to address this concern are to conduct tracer studies with an injection point at Carquinez, Vernalis, Freeport and Turner Cut. At a minimum, the alternative needs to address this point in the description.

Alternative 1

1. According to our technical experts the velocities stated in the operation of Clifton Court may conflict with the fish screens. Further research would be required before implementation.

2. A more detailed explanation of water movement into an off aqueduct storage would be useful.

3. On Page 4, third bullet, Treatment Actions: It is unclear what is meant by "reducing pollutants in water diverted from the Delta" and for what purpose (e.g., agriculture, municipal and industry, other use, or combination of uses). One interpretation is treating diverted water to remove pollutants, but there may be others. The alternatives should provide options for how actions will be accomplished. (See ALTERNATIVE 2 - MODIFIED THROUGH DELTA CONVEYANCE, Page 4 and ALTERNATIVE 3 - DUAL DELTA CONVEYANCE, Page 4 also.)

4. On Page 7, we suggest that these bullets be redefined to read as follows: First bullet: New fish screens at the Skinner Fish Facility and the Tracy Fish Collection Facility; or Second bullet: Construct an intertie/interconnection between the Tracy Pumping Plant and the Clifton Court Forebay with a new fish screen at the inlet to the Clifton Court Forebay.
(See ALTERNATIVE 2 - MODIFIED THROUGH DELTA CONVEYANCE, Pages 7, 13, 16, and 19; ALTERNATIVE 3 - DUAL DELTA CONVEYANCE, Pages 6, 16, 19, 21, 25, and 28 also.)

5. On page 9, fourth bullet at the bottom of the page: There is a reference to the filling of groundwater storage facilities. It is unclear if these will be filled by groundwater recharge

and what operation requirements will be (e.g., existing operations of Delta Cross Channel Gates).

8. On page 18, second and third bullet: There is reference to a weir intake and inflatable rubber dam, however they are not clearly shown on the drawing.

Alternative 3

1. The reasoning for bracketing the capacities of the isolated facilities (e.g 5000cfc-15000cfs) would help explain the configurations.

2. There seems to be a discrepancy between the text and a few of the alternative drawings. In ALTERNATIVE 3F, the diagram does not show the location(s) for the 5,000 cfs from "distributed pumps along the isolated storage and conveyance facility."

In ALTERNATIVE 3I the drawing does not agree with the description of the isolated conveyance channels. The drawing shows a 15,000 cfs screened diversion at Hood with an isolated channel emptying into the San Joaquin River at the southern end of the Rindge Tract. The isolated channel continues on the other shore of the San Joaquin River at the northern end of the Lower Roberts Island with an unscreened intake and empties into the Old River near the Clifton Court Forebay. The description of the Northern Isolated Channel states the isolated channel starts with a diversion on the San Joaquin River.

In ALTERNATIVE 3I drawing there is no siphon shown under the San Joaquin River for the isolated conveyance channel from Hood to connect with the unscreened isolated conveyance channel on the other side of the river.

3. On page 18, fifth bullet: It would help to clarify which cylindrical fish screens are being considered,(e.g., submerged cylindrical T screens or rotary drum screens).

OTHER ISSUES (not specific to the Alternatives Package)

1. There is a concern that the evaluation of power without a clearly defined affected environment or modeling results will result in a faulty analysis.

2. There have been discussions of using the CVPIA PEIS Power Affected Environment as the basis for the evaluation. However, the CALFED evaluation includes far more than just the CVP. At a minimum we recommend SWP power impacts be evaluated as well.

10. A long-term scientific review process would help guide adaptive management decisions, resolve conflicts and address scientific uncertainty.

11. If there has been any cost analysis conducted for the alternatives, it would be useful to include in the document for a more detailed evaluation of the criteria.

12. A definitive strategy for the analysis of groundwater storage would be very beneficial.

13. The impact analysis teams provide a productive forum for technical discussions. We are concerned that we have not heard about any "Team 6" meetings. It would be useful to ensure that the different teams understand the discussions of other teams.

14. We are concerned that there appear to be no analytical tools for evaluating the impacts (e.g., water needs) of ecosystem restoration activities.

H-000129